

**CATALYST FOR OLEFIN LOW POLYMERIZATION AND LOW POLYMERIZATION USING THE SAME**

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**Abstract of JP8325319**

**PURPOSE:** To obtain the subject catalyst comprising a chromium compound, a pyrrole-containing compound, an alkyl metal compound and a specific superstrong acid salt, capable of carrying out low polymerization reaction in extremely high activity without using a halide.

**CONSTITUTION:** This catalyst for low polymerization for an olefin comprises (A) a chromium compound, (B) a pyrrole-containing compound, (C) an alkyl metal salt and (D) a superstrong acid salt of the formula  $M(OSO_2CF_3)_q$  ( $q$  is 1-4;  $M$  is an element of the group IA, IIA, IIIA, VIII, IB, IIB, IIIB and IVB) (e.g. tin trifluoromethanesulfonate, etc.). A compound of the formula  $CrAmBn$  ( $m$  is 1-6;  $n$  is 0-4;  $A$  is a 1-20C alkyl, alkoxy, carboxyl, &beta;-diketonate, etc.;  $B$  is a nitrogen-containing compound, a phosphorus-containing compound, an arsine-containing compound, etc.) is preferably used as the component A. A compound of the formula  $M'R_pX_q$  ( $p$  is  $0 < p \leq 3$ ;  $q$  is  $0 \leq q < 3$ ,  $p+q$  is 1-3;  $M'$  is lithium, magnesium, zinc, etc.;  $R$  is a 1-10C alkyl;  $X$  is H, an alkoxy, etc.) is preferably used as the component C.

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